



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/559,795	12/08/2005	Masakatsu Nitawaki	107348-00543	7495
4372	7590	04/08/2009		
ARENT FOX LLP 1050 CONNECTICUT AVENUE, N.W. SUITE 400 WASHINGTON, DC 20036			EXAMINER LUGO, CARLOS	
			ART UNIT 3673	PAPER NUMBER
			NOTIFICATION DATE 04/08/2009	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DCIPDocket@arentfox.com  
IPMatters@arentfox.com  
Patent\_Mail@arentfox.com

# Office Action Summary

**Application No.**

10/559,795

**Applicant(s)**

NITAWAKI ET AL.

**Examiner**

CARLOS LUGO

**Art Unit**

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

### DETAILED ACTION

1. This Office Action is in response to applicant's RCE filed on January 16, 2009.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(f) He did not himself invent the subject matter sought to be patented.

3. **Claims 1-8 are rejected** under 35 U.S.C. 102(f) because the applicant did not invent the claimed subject matter.

At the instant, US Pat No 7,217,899 in view of Hidaka et al (Hidaka) discloses the invention has claimed. At the instant both, the current application and the '899 document, disclose the same invention. Because of that, it is unclear who in fact the inventor of the system is. The current application and the Hidaka have some common inventors but different assignees.

Hidaka discloses a vehicle door handle system comprising a handle (14), a pair of electrodes (43), a circuit board (44), and a ground plate (47). The electrodes are covered by the ground plate and are patterned on the circuit board (Col. 4 Line 38-57). The ground plate and the electrodes are covered by a covering portion made of a synthetic resin (48). Appropriate prove of inventorship is required.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-6 are rejected** under 35 U.S.C. 103(a) as being unpatentable over US Pat No 6,075,294 to Van den Boom et al (Van den Boom) in view of US Pat No 5,304,967 to Hayashi and US Pat No 6,740,834 to Sueyoshi et al (Sueyoshi '834).

Regarding claim 1, Van den Boom discloses a vehicle door outer handle system comprising an operating handle (13) comprising a handle main body made of a synthetic resin and a cover (29) made of a synthetic resin so as to cover the outer side of the handle main body (28).

The operating handle is disposed on an outer side of a vehicle door. A pair of electrodes (30); and a circuit board (34), on which is provided a detection circuit for detecting a change in capacitance between the electrodes, are housed within the operating handle.

However, Van den Boom fails to positively disclose that the electrodes are patterned on the circuit board.

Hayashi teaches that it is well known in the art to provide a circuit board (43) having electrodes (52-56) patterned on it (Col. 8 Lines 1-11).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the electrodes described by Van den Boom patterned on the circuit board, as taught by Hayashi, in order to organize all the circuit components in a single component.

Van den Boom also fails to disclose that the ground plate and the electrodes are covered by a covering portion made of a synthetic resin.

Sueyoshi '834 teaches that it is well known in the art to use a potting material (110) for covering certain electronic elements.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the plate and electrodes described by Van den Boom, encapsulated in a resin material, as taught by Sueyoshi '834, in order to provide protection to the members.

As to claim 2, Van den Boom, as modified by Hayashi, illustrates that among opposite faces of the circuit board (34), a component of the detection circuit is mounted on the face on the side opposite to the face where the electrodes are patterned.

As to claims 3/1 and 3/2, Van den Boom, as modified by Hayashi, illustrates that among opposite faces of the circuit board, the electrodes are capable of being patterned on the face on the vehicle side.

As to claim 4, Van den Boom illustrates that a sensor unit, which comprises the electrodes, the circuit board, and a covering portion made of a synthetic resin and covering the electrodes and the circuit board, is fixedly housed in a housing recess formed in the handle main body so as to open on the cover side.

As to claim 5, Van den Boom illustrates that the electrodes (30) and the circuit board (34) are mounted on a holder (surface of 28 in contact with the sensor unit), a

majority of the holder is covered by the covering portion so as to form a part of the sensor unit.

As to claim 6, Van den Boom illustrates that a ground plate (36) forming a part of the sensor unit is mounted on the holder so as to cover the electrodes and is covered by the covering portion (29).

6. **Claims 1-6 are rejected** under 35 U.S.C. 103(a) as being unpatentable over US Pat No 6,883,840 to Sueyoshi et al (Sueyoshi '840) in view of US Pat No 6,075,294 to Van den Boom et al (Van den Boom), US Pat No 5,304,967 to Hayashi and US Pat No 6,740,834 to Sueyoshi et al (Sueyoshi '834).

Regarding claim 1, Sueyoshi '840 discloses a vehicle door outer handle system comprising an operating handle (7) comprising a handle main body made of a synthetic resin. The operating handle is disposed on an outer side of a vehicle door and includes an electrode (21) inside the main body.

Sueyoshi '840 fails to disclose a pair of electrodes. However, applicant is reminded that duplicating the components of a prior art device is a design consideration within the skill of the art.

Also, Sueyoshi '840 fails to positively disclose that the handle is comprised of a main handle body and a cover.

Van den Boom teaches that it is well known in the art to provide a handle composed of separate members connected together, specifically, having a cover part (29) and a main body (28).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the handle described by Sueyoshi '840 as a cover part and a main body, as taught by Van den Boom, in order to provide a handle in which the inner components can be easily reached by just taking out a cover.

Also, Sueyoshi '840 fails to disclose that the electrode is "patterned" in a circuit board placed inside the handle body.

Van den Boom teaches that it is well known in the art to provide a circuit board (34) interacting with the electrodes.

Hayashi teaches that it is well known in the art to provide a circuit board (43) having electrodes (52-56) patterned on it (Col. 8 Lines 1-11).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the electrode described by Sueyoshi '840 interacting with a circuit board, as taught by Van den Boom, in order to provide an electric component that would read and actuate with respect to what the electrode is sensing.

Further, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the electrode described by Sueyoshi '840 patterned on a circuit board, as taught by Hayashi, in order to organize all the circuit components in a single component.

Finally, Sueyoshi '840 fails to disclose that the ground plate and the electrodes are covered by a covering portion made of a synthetic resin.

Sueyoshi '834 teaches that it is well known in the art to use a potting material (110) for covering certain electronic elements.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the plate and electrodes described by Sueyoshi '840 encapsulated in a resin material, as taught by Sueyoshi '834, in order to provide protection to the members.

As to claim 2, Sueyoshi '840, as modified by Van den Boom, Hayashi and Sueyoshi '834, illustrates that among opposite faces of the circuit board, a component of the detection circuit is mounted on the face on the side opposite to the face where the electrodes are patterned.

As to claims 3/1 and 3/2, Sueyoshi '840, as modified by Van den Boom, Hayashi and Sueyoshi '834, illustrates that among opposite faces of the circuit board, the electrodes are capable of being patterned on the face on the vehicle side.

As to claim 4, Sueyoshi '840, as modified by Van den Boom, Hayashi and Sueyoshi '834, illustrates that a sensor unit, which comprises the electrodes, the circuit board, and the covering portion made of a synthetic resin, is fixedly housed in a housing recess formed in the handle main body so as to open on the cover side.

As to claim 5, Sueyoshi '840, as modified by Van den Boom, Hayashi and Sueyoshi '834, illustrates that the electrodes and the circuit board are mounted on a holder (surface of the handle main body in contact with the sensor unit), a majority of the holder is covered by the covering portion so as to form a part of the sensor unit.



As to claim 6, Sueyoshi '840, as modified by Van den Boom, Hayashi and Sueyoshi '834, illustrates that a ground plate forms a part of the sensor unit and is mounted on the holder.

**7. Claims 7 and 8 are rejected** under 35 U.S.C. 103(a) as being unpatentable over US Pat No 6,075,294 to Van den Boom et al (Van den Boom) in view of US Pat No 5,304,967 to Hayashi and US Pat No 6,740,834 to Sueyoshi et al (Sueyoshi '834) as applied to claims 4 and 5, and further in view of US Pat No 6,769,154 to Klein et al (Klein).

Van den Boom, as modified by Hayashi and Sueyoshi '834, fails to disclose the holder is a separate member that is mounted on the handle main body. Van den Boom discloses that the handle main body acts as a holder.

Klein teaches that it is well known in the art to provide a holder (15) that holds electric components (16) inside a handle main body. As to the shape of the part that holds the holder in the main handle body, the shape is considered as a design consideration within the art that has no critically. The shape of this receiving part would be according to the holder specifications and/or shape that are best for fitting the holder in the handle main body.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the handle main body described by Van den Boom, as modified by Hayashi and Sueyoshi '834, with a holder member, as taught by Klein, in order to hold in place the components inside the handle main body.

8. **Claims 7 and 8 are rejected** under 35 U.S.C. 103(a) as being unpatentable over US Pat No 6,883,840 to Sueyoshi et al (Sueyoshi '840) in view of US Pat No 6,075,294 to Van den Boom et al (Van den Boom), US Pat No 5,304,967 to Hayashi and US Pat No 6,740,834 to Sueyoshi et al (Sueyoshi '834) as applied to claims 4 and 5, and further in view of US Pat No 6,769,154 to Klein et al (Klein).

Sueyoshi '840, as modified by Van den Boom, Hayashi and Sueyoshi '834, fails to disclose the holder is a separate member that is mounted on the handle main body. Van den Boom teaches that the handle main body acts as a holder.

Klein teaches that it is well known in the art to provide a holder (15) that holds electric components (16) inside a handle main body. As to the shape of the part that holds the holder in the main handle body, the shape is considered as a design consideration within the art that has no critically. The shape of this receiving part would be according to the holder specifications and/or shape that are best for fitting the holder in the handle main body.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the handle main body described by Sueyoshi '840, as modified by Van den Boom, Hayashi and Sueyoshi '834, with a holder member, as taught by Klein, in order to hold in place the components inside the handle main body.

***Response to Arguments***

9. The current amendment overcomes the previous rejection to the claims. However, a new rejection has been made on the record. Sueyoshi '834 teaches that encapsulating electronic members with a resin material is well known in the art.

Also, the previous double patenting rejection has been provisionally withdrawn. However, the examiner now raises doubt of who actually is the inventor of the device since the current application and Hidaka are drawn to the same device.

***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CARLOS LUGO whose telephone number is (571)272-7058. The examiner can normally be reached on 10-7pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Cuomo can be reached on 571-272-6856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 3673

If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Carlos Lugo/  
Primary Examiner  
Art Unit 3673

April 1, 2009.